Amendments to the Claims

Listing of Claims

Claim 1. (Canceled).

Claim 2. (Canceled).

Claim 3. (Canceled).

Claim 4 (Canceled).

Claim 5 (Currently amended). A method for transmitting and receiving a data with low BER (Bit Error Rate) in the presence of interference (collision), at an one-way (simplex mode) wireless communication (broadcast, TV), comprising the steps of:

assigning to each BS (Base Station) its identification code UAC (Unique Address Code) and EIG (Encoded Information Group), the EIG is comprised of a sequence of regularly interchanging "1" and "0" bits with different durations;

converting each "1" bit of the data into an EIG at the BS;

framing the UAC and data signals at the BS, duration of the frames are constant;

modulating the said frames to initiate a wireless communication, various types of modulation PSK , FSK, ASK may be applied;

transmitting the said modulated frames by BS;

tuning in to the UAC, EIG and the frequency of the corresponding BS at the SS (Subscriber Station) for receiving data;

measuring at the SS the NCCRP (Number of Continuous Clock Rate Periods) of the RS (Reference Signal), that continually match that of the incoming signal, the RS is generated in the SS and acts as a copy of the UAC of the BS;

synchronizing the SS with the BS when the measured value (as a number) of the NCCRP exceeds the assigned number of the TVM (Threshold Value of Matches);

measuring at the SS the relative changes (voltage hopping) of the level of the incoming signal at the starting and ending instances of "1" bits of the EIG, i.e. as the SS and BS are synchronized the SS knows at what instances the data bits ought to be;

recovering at the SS the data transmitted by the BS from measured values of voltage hopping by following the elevations and drops (Voltage Hops) that take place at the stat and end points of the "1" bits.

~~The method as claimed in claim 4, for detection of the Unique Address Code (UAC) of the base station, further comprising: a Threshold Value of Matches, also referred to hereinafter as (TVM), is assigned to the Number of Continuous Clock Rate Periods (NCCRP); the Number of Continuous Clock Rate Periods (NCCRP), of the Reference Signal that match the incoming signal, is being measured; and when the measured value (as a number) of the Number of Continuous Clock Rate Periods (NCCRP) exceeds the assigned number of the Threshold Value of Matches (TVM), then the Reference Signal Generator (RSG) of the receiver device of the subscriber station is synchronized with the base station, synchronization is being performed by the Unique Address Code signal.~~

Claim 6. (Canceled).

Claim 7 (Currently amended). A method for transmitting and receiving the data with low BER in the presence of interference (collision), at a duplex mode wireless communication, comprising the steps of:

assigning to each SS its own identification code UAC, EIG for converting "1" bits of data, and two frequencies such as f1 and f2 to transmit and receive data, the EIG is comprised of a sequence of regularly interchanging "1" and "0" bits with different durations;

tuning in to their own UAC, EIG and frequency, say f1 at the SSs and listen to detect the availability of its UAC in the incoming signal under inactive status;

tuning in to the UAC and EIG of the SS B (subscriber station B) at the SS A (subscriber station A) when SS A attempts to connect to SS B;

tuning in to frequencies f1 and f2 when the SS A attempts to detect the availability of the UAC of the SS B in the incoming signal, if the UAC of SS B is available, then SS B is considered to be busy;

blocking its own transmitter and receiver's registering device at the SS A, to disable SS A receiving data from SS B, which is not intended for SS A, and similarly to not transmit data to SS B, when SS B is busy;

switching transmitter over to frequency f1, and receiver to frequency f2 at the SS A, when SS B becomes free as detected by the absence of the SS B's UAC in the incoming signal;

framing the SS B's UAC and data converted by SS B's EIG at the SS A, duration of the frames are constant;

modulating the said frames on the frequency f1 at the SS A, various types of modulation PSK, FSK, ASK may be applied;

transmitting the said modulated frames from the SS A;

measuring at the SS B receiver the NCCRP of the RS, that continually match that of the incoming signal, RS is generated at the SS B receiver and acts as a copy of the UAC of the SS B;

synchronizing the SS B receiver with the SS A transmitter when the measured value (as a number) of the NCCRP exceeds the assigned number of the TVM;

measuring at the SS B receiver relative changes (voltage hopping) of the level of the incoming signal at the starting and ending instances of "1" bits of the EIG, i.e. as the SS B receiver and SS A transmitter are synchronized the SS B receiver knows at what instances the data bits ought to be;

recovering the data transmitted by the SS A at the SS B receiver from measured values of voltage hopping by following the elevations and drops (Voltage Hops) that take place at the stat and end points of the "1" bits;

framing at the SS B's transmitter its own UAC and data converted by SS B's EIG, duration of the SS B frames are the same as the SS A frames duration;

modulating the said frames on the frequency f2, various types of modulation PSK, FSK, ASK may be applied;

transmitting the said modulated frames by the SS B, receiving the SS B UAC by SS A implies that a direct communication between SS A and SS B is now possible and enabled, hence enabling the data exchange.

~~The method as claimed in claim 4 a two-way wireless communication (duplex operation) between two separate subscribers stations, further comprising: two frequencies such as f1 and f2, are supplied to transmit and receive information, all subscribers stations operate on these two frequencies f1 and f2; under inactive status, all subscribers stations tune in and listen to detect their own Unique Address Codes (UACs) and their unique Encoded Information Group (EIG) in the incoming signal; and a search, conducted on the same frequency, say, f1 attempts to detect the availability of its Unique Address Code (UAC) in the incoming signal.~~

Claim 8 (Canceled).

Claim 9 (Canceled)

Claim 10 (Currently amended). A method for transmitting and receiving the data at the duplex mode wireless communication as claimed in claim 7, further comprising the steps of:

measuring at the SS A the amount of the time delay of the received UAC signal regarding UAC signal transmitted by SS A;

computing the distance between subscribers stations A and B from the said measured amount of the time delay between UAC signals transmitted and received by SS A.

~~The method for transmitting and receiving information as claimed in claim 9, in the two-way communication (duplex operation) further comprising: in duplex operation, when subscriber station A initiates the communications, the Reference Signal Generator (RSG) of both the transmitter and receiver devices of subscriber station B is synchronized with the Reference Signal Generator (RSG) of the transmitter device of subscriber station A, the Unique Address Code (UAC) signal transmitted by subscriber station B and received by subscriber station A will time delay behind the signal of the Reference Signal Generator (RSG) of subscriber station A's transmitter device, the amount of the time delay will depend on the physical distance between subscribers stations A and B, subscriber station A measures the amount of the time delay of the received signal; the distance between subscribers stations A and B is computed from the amount of the time delay between the two signals; the speed that subscriber station B moves relative to subscriber station A is computed from the changes of the amount of the time delay between the two signals; the directional aerial (antenna) of subscriber station A determines the direction of location of subscriber station B; the coordinates of subscriber station B's location are computed from the measured direction of location of subscriber station B as well as from the amount of the time delay between the two signals; when subscriber station B is in motion, then subscriber station A is able to determine the distance, coordinates, trajectory and the speed at which subscriber station B is moving relative to subscriber station A, these properties are computed from the measured value of direction and amount of time delay between the two signals and also from the measured value of changes of the amount of the time delay between the two~~

~~signals; and when the subscriber station B is not moving, then subscriber station A is able to determine its own location, coordinates, trajectory and speed.~~

Claim 11 (Currently amended). A method for transmitting and receiving the data at the duplex mode wireless communication, as claimed in claim 7, further comprises:

transmitting simultaneously and intentionally a strong interference along with the data, to maintain the security of the transmission, consequently preserving the confidentiality of the transferred data.

~~The method for transmitting and receiving information as claimed in claim 8, further comprising: a strong interference is simultaneously and intentionally transferred along with the information, to maintain the security of the transmission, consequently preserving the confidentiality of the transferred information.~~

Respectfully submitted,

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